

*Male*.—Length 9.5 mm. Anterior margin of the clypeus truncate, the lateral angles rounded, its surface more closely punctured than the face; face with large, distinct, separate punctures; front with close, distinct punctures; the inner margin of the eyes raised into elongate, narrow, blister-formed elevation; vertex and posterior orbits with distinct, large, separate punctures; fourth antennal joint about twice as wide as long, about half as long as fifth and one-third longer than the third; tegulae large, sparsely punctured anteriorly but closely punctured posteriorly; mesonotum with close, distinct, rather large punctures; mesoscutellum truncate posteriorly, punctured like the mesoscutum; abdomen with large, close punctures; these punctures are not as close as those of the scutum but are separated in some places as much as those of the vertex; terminal tergite with strong, median triangular-shaped tooth which is longitudinally carinate, the lateral angles of the tergite broadly rounded; in appearance at first sight the segment seems to have a single median tooth but in reality it is tridentate, the lateral teeth being very short and obtuse; second recurrent distinctly beyond the second intercubitus, the first abscissa of the radius one-fifth shorter than the second, the second abscissa of the cubitus but little shorter than the first. Black; clypeus except apical margin, mandibles except margins, inner orbits to the top of the eye (broader below the antennae), a spot on the superior posterior orbits, two spots at the anterior margin of the mesoscutum, tubercles, a dot on the tegulae anteriorly, lateral margin of the scutellum and a band on the first five tergites which is emarginate medially and submarginate on each side, after the manner of *texanum*, yellowish white; tegulae and legs, except the coxae, trochanters and bases of femora, rufo-ferruginous; anterior femora and tibiae beneath and a spot on the apical ventral part of the posterior femora yellowish-white; the usual pubescence, dense and silvery white; wings strongly smoky, venation black.

Bear Cañon, Catalina Mountains, Arizona. Described from one male recorded under Bureau of Entomology No. Hopk. U. S. 12082i which refers to a note stating that this was reared from a nest on the twigs of *Quercus emoryi*, collected by Morris Chrisman.

Type.—Cat. No. 20297, U. S. N. M.

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#### NOTES ON DIANTHIDIUM ARIZONICUM ROHWER.

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In August 1914 Mr. Morris Chrisman sent to the Eastern Field Station with a lot of cynipid galls, the nest of a *Dianthidium*. This nest was collected on the twig of a narrow leafed oak at Bear Cañon, Catalina Mts., Arizona. In as much as the maker of this nest proved to be a new species which has been described

by Mr. Rohwer as *Dianthidium arizonicum* the following notes are worth recording.

This nest was a nearly globular mass of resin and small pebbles (granite sand), attached to a twig about one-half inch in diameter and at the time received contained one larva and four prepupal larvae in cocoons. It is reproduced, about natural size, on plate XV, figs. 1 and 2.

The prepupal larva is yellowish white, about 12 mm. long, constricted ventrally and expanded dorsally to form a U. The circumference of the body anteriorly is less than the circumference posteriorly which makes a somewhat pear-shaped outline. The greatest dorsad-ventrad diameter is 3.75 mm., at about two-thirds the body length beyond the head. The head is entirely pale; 1 mm. broad and 1.2 mm. high; frons triangular, not distinct; anterior margin of labrum finely crenulate, the dorsal and lateral margins arched (see fig. 3*b*); mandibles small and completely covered by the exterior angles of the labrum; maxillae and labium spined; antenna, situated against frontal epicranial suture about length of labrum above dorsal articulation of mandible and consists of a large pure white, membranous circle from which a small yellowish white cone projects (see fig. 3*c*).

The cocoon is a thin, transparent pale brown, oval, 8.5 mm. long by 4.5 mm. broad, with one end darker, thicker and with a distinct although small mamma. The mamma has a small opening apically, basally there is a partition separating it from the interior of the cocoon (as shown in fig. 3*a*). The cocoons are completely buried in the nest mass and not protruding from, or exposed at, the surface, nor are they smaller than the cell to which their walls adhere.

The following table summarizes some of the points known concerning the biology of this and the three other Nearctic species of *Dianthidium* whose nests have been described. The data concerning *D. texanum* was taken from Melander (Biol. Bull., vol. 3, No. 112, pp. 27-34); that concerning *D. consimile* from Davidson (Ent. News, vol. 7, 1896, pp. 22-25) and that concerning *D. cressoni* from Cockerell (Bull. Am. Mus. Nat. Hist., vol. 22, 1906, pp. 444, 445).

#### EXPLANATION OF PLATE.

Fig. 1. Entire nest.

Fig. 2. Nest broken open showing cocoons, and cell from which cocoon has been removed.

Fig. 3. *a*, Section of anterior end of cocoon. *b*, Labrum of larva. *c*, Antenna and portion of head of larva showing dorsal articulation of mandible (*dam*) and frontal epicranial suture (*fes*).

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